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MEMORANDUM

Features of the World Cotton Situation

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June, 1944

Supplies

The wartime shrinkage of about three million bales in the world's annual cotton crop is explained largely by the disorganization of production in China and the Soviet Union and the diversion of cotton land to food and feed crops in Egypt and India. Production in most if not all of these countries may be expected to recover quickly after the war's end. China and the U.S.S.R. normally depend upon their own production to meet the needs of their own consumers. In Egypt and India the wartime decreases result from pressure of increased need for foods for the allied military requirement, coupled with a shortage of available shipping for the import of food and the export of cotton, and in the case of India with the loss of Burma's rice surplus. Egypt, which has cut its cotton acreage by two-thirds, will almost certainly wish to lift its restriction decree, cotton being its best income crop under normal conditions. In India, when access to Burma has been regained, the food position should ease, making possible a rise in cotton acreage.

In Latin America the strong expansionist tendencies evident in the pre-war period have prevailed through the war in Brazil, Argentina, Paraguay, and Mexico. Especially in South America new land is still abundant and cheap, and national policies definitely favor its development. Costs in terms of the dollars and sterling are exceptionally low, due in part to living standards and in part to the severe depreciation of the South American currencies through the 1930's, while the marketability of cotton in the industrial and creditor countries of Europe fits the crop admirably to the external needs of South American national economies. Production in

these countries seems likely, therefore, to continue to increase though prices may decline considerably; and the point at which, without the imposition of restraints, it will level off is not yet in sight. In a minor way restoration and expansion are to be expected in Europe itself. Under pressure to improve their foreign exchange positions, Spain, Italy, Greece, and Bulgaria have successfully promoted cotton growing at home and though not individually important, their production with that of Turkey could in the not too distant future afford Europe half a million bales or more in the aggregate. France has had some moderate success in its colonies, particularly French Equatorial Africa, and has given evidence of wishing to develop an extensive program. Belgium in the Congo and Portugal in Mozambique are likely to press their cotton enterprises to a larger development.

Of equal or even greater importance in the immediate post-war supply-demand situation is the fact that by the time the war ends, the world carry over of raw cotton may be 2 to 4 million bales larger than the 1938 pre-war peak of 22-3/4 million bales. And from the standpoint of American cotton it is highly significant that the carry-over of foreign cotton on August 1, 1944, is certain to be more than six and possibly as much as eight million bales larger than when the war started in 1939.

Consumption

The annual consumption of cotton in the world is estimated to be currently a little under 25 million bales, which is roughly 3 million bales below the immediate pre-war rate. Moving against this short-term trend, mill consumption has increased in the United States under pressure of military demand and is now about 3-1/2 million bales above the pre-war average. Canada has also increased consumption by not quite a quarter of a million bales; Latin America by more than half a million bales; and India by about one million bales. In most of the remaining countries of the world, which include nearly all of those to which the United States has customarily exported cotton in volume, wartime consumption has shown a decline aggregating 9 to 10 million bales from the pre-war levels. This decline has only partially been compensated for by increases in rayon consumption. Acute shortages of clothing and of cotton goods have developed in many countries of the world. Insofar as the purchasing power of these countries will permit, the physical needs of their populations should motivate substantial new purchases of cotton goods which in turn should greatly stimulate activity in cotton manufacturing countries, especially those which have been depressed. In countries with little external purchasing power relief distribution of goods will contribute to this revival. Similar conditions following the first world war gave rise to intense activity but the period of its duration was less than a year and a half, and the year following was one of the most drastic price deflation since 1870. Even in 1919-1920 consumption outside the United States failed to attain the levels of earlier years.

Over a hundred years or more world consumption has fluctuated with

peace and war and with prosperity and depression, but the long-time trend has always been upward. From 1914 to 1939 the increase was about one-third, but in this quarter century important shifts in consumption took place which are significant from the standpoint of cotton export trade. A marked decline took place in the relative importance of the few highly industrialized countries, which before 1914 produced and distributed large quantities of cotton goods to the world; the gains were mainly in the countries which are themselves producers of cotton. Moreover, in the highly developed countries of the world, the peacetime consumption of cotton goods on a per capita basis showed little tendency to rise. Here improvements in standards of living appear to have been reflected in an increased per capita consumption of textiles made from synthetic fibers rather than from cotton.

There is little evidence that these long-time trends or tendencies will change direction after the return of peace. The total consumption of cotton in the world, though set back by the war, should in the course of time rise to new heights, but it should not be surprising if the major increases in cotton goods consumption take place in countries in which the per capita consumption has heretofore been small, and in the countries which in former years have exported raw cotton or imported goods or both.

Among the most important of such countries are India and Brazil, both of which have shown important wartime gains in cotton consumption. India's experience in this war has in some respects paralleled that of Japan in the last, and India will emerge not only self-sufficient in cotton goods production but, also, reverse its former position and become an exporter of goods. India will, of course, utilize its own cotton largely, importing only those

qualities not grown in India in sufficient quantities. The fact that India now possesses a large fund of sterling suggests that cotton imports may largely be drawn from countries of the sterling area, British East Africa in particular, and possibly Iraq, Egypt, and the Sudan. Brazil has increased its consumption to about the equivalent of 800,000 bales, which is still something less than 40 per cent of its raw cotton production, and is now a net exporter of cotton goods instead of a net importer as was the case only a few years ago. Brazil aspires to continue as an exporter of goods but is not a low-cost manufacturer, and its ability to continue to export goods in peacetime is problematical. In any case its mill consumption has always been and is likely to continue to be entirely of its own cotton.

The United Kingdom is now laying plans for an increase of export trade in general but sees little prospect that its exports of cotton products can rise above the level of 1936-37 when they were only about 30 per cent of the 1913-14 average. Britain will enter the post-war period with its cotton industry handicapped by much obsolescent equipment and with difficulties in recruiting young mill operatives. Canada has roughly doubled its pre-war consumption of raw cotton and has approximately attained self-sufficiency at about 500,000 bales, all of which must, of course, be imported.

The future of Japan, which before the war was rated the lowest-cost producer of cotton goods for export, is clouded with uncertainty and may depend to a large extent upon the role which that country is allowed to play when the war is finished. Japan's position as a cotton goods exporter, which was enhanced by the devaluation of the yen in 1932, weakened perceptibly after 1937. Also, the loss of a substantial part of its silk trade

with the United States in the 1930's and the efforts to enlarge its imports of commodities needed in its war preparations impaired Japanese ability to import raw cotton for the use of its own people and stimulated the productio of synthetic fibers. Since the beginning of the war Japanese cotton mills are understood to have been partially dismantled in a program designed to shift a substantial part of its cotton textile industry to the Asiatic mainland, and it appears that under the most favorable conditions some time may be required to recover to the level of 1937. At this level it might again become an exporter of goods to South American countries and to South Africa.

The continent of Europe must remain something of an enigma. Chief uncertainties are the extent of the destruction and disorganization of industry, and in the case of Germany and Italy, the form which their economies will take in the post-war political reorganization of Europe. With the skillful exercise of statesmanship, the continent may again become a substantial user of raw cotton although the problem of exchange must continue to dictate a large use of synthetic substitutes.

The development of the synthetic fiber industry over the past 25 years has been characterized by three trends of basic importance, some of which have continued or even been accentuated in many areas even during the present war period. These are improvement of quality, cheapening of costs, and expansion of the instrumentalities of production, and together with other factors have resulted in a world production in 1942 equivalent to possibly 8 million bales of raw cotton. The effect of quality improvement has been to increase the preference of consumers for synthetics in an ever-widening range of uses. Price reductions have intensified the competition with the

lower-priced fibers; and the increase of capacity for production has removed former physical limitations to the volume of their actual production. Displacing first silk, the synthetics have come since to dispute the field of wool and of cotton. The extent of these displacements has never been accurately calculated, but estimates suggest that possibly 60 per cent or more of all rayon production goes now into uses which in its absence cotton would normally serve.

A factor in the economics of rayon, the full significance of which -- both for its future consumption and for its competition with cotton--is perhaps not generally realized, is the fact that in the large-scale cotton-importing countries its production permits large savings of foreign exchange The usual source of cellulose is wood pulp which is normally obtainable at costs equivalent to no more than 4 or 5 cents a pound of finished product and often without any expenditure whatever of dollars or sterling, or in fact of any other foreign exchange. In countries possessing well-developed chemical industries, nearly all of the other materials are available domestically and can be paid for in their own currencies. At the same time the processes of production give additional employment to the people of the country. By comparison, cotton on a waste-free basis can seldom be had at less than twice the cost in terms of foreign exchange. The importance of these facts is that in countries which can produce rayon and which at the same time are under compulsion to economize foreign exchange, the governments can force rayon into uses for which it is physically less suitable than are the natural fibers. Forced substitution of rayon for cotton occurred in Germany, Italy, and Japan in the late 1930's when the funds of foreign exchange which could be spared

for the importation of cotton were small. It is not apparent that in post-war years these countries will be better supplied with foreign exchange than before the war, and a continuation of their pre-war restrictions on the use of cotton seems likely at least for a time.

The United Kingdom's loss of external sources of revenue in the war could make the same considerations applicable there; and in connection with a pending program for modernizing the British cotton textile industry, the rayon industry there has given notice of an intention to move for the installation of machinery adapted specially for the spinning of staple fiber. In France also it is not impossible that, in the process of national reconstruction, demands on the country's foreign funds will dictate a larger production of synthetics for domestic use.

International Trade

The annual total of international trade in cotton before the first world war was about 13 million bales. The war materially reduced this figure, but by 1924-25 the trade had recovered and for the next 15 years it tended to remain fairly stable at or near this level. This relative stability in the face of the important increases which took place in world cotton production and consumption reflects, of course, the expansion of the industry in cotton growing countries. Through the 1920's the share of the United States in total world exports was about 60 per cent, but in the 1930's the American share was reduced and the total of the shares of other countries correspondingly increased. Simultaneously, cotton's share in the total of United States exports declined sharply, as in fact did the share of agriculture as a whole.

In post-war years, if the tendency of cotton manufacturing to increase in the cotton-growing countries rather than in the cotton importing countries continues as in the interwar period, little if any increase in the total volume of the international raw cotton trade should be expected. On the other hand, if there can be substantial improvement of living standards in the populous countries as yet little developed, this may be reflected in an increase of trade in cotton. In either case the share which the United States can have of that market will depend largely upon two conditions, namely, (1) the price at which American cotton can be offered in the world market, and (2) the purchasing power of other countries in terms of United States dollars.

With respect to price it may be noted that cotton manufacturers in the importing countries are generally more favorably disposed to American

cotton than to competitive growths. The premium, however, which foreign spinners will pay for American cotton seldom exceeds a fraction of a cent a pound over the price of similar qualities of other growths. When the price differences between American and competitive cottons of like quality are wider, little American cotton can be sold under conditions of free competition so long as supplies of other cottons are available.

It would be difficult also to overestimate the importance of dollar purchasing power in the hands of foreign customers. The large-scale cotton exports from the United States through most of the 1920's were made possible largely by the liberal loans of American dollars to Europe under the Dawes and Young plans. The experience with those loans suggests that not only is more care likely to be exercised after this war in the extension of credits abroad, but also that the more responsible foreign borrowers may be less inclined to incur obligations in dollars. It is not impossible, therefore, that Europe and Japan (if that country again attains importance as a cotton manufacturer) will seek to import as much as possible of their raw materials from the less highly industrialized countries in which they can find markets for their exports of manufactures. In the case of the United Kingdom, moreover, there may be a more marked tendency than heretofore to restrict purchases of cotton to countries within the sterling area or to debtor countries. Developments of this kind obviously will not be advantageous to the American export trade.

A further possibility of considerable importance is that most of the cotton-importing countries of Europe may feel compelled during an extended period following the war to control the sources and volumes of their imports

while their trade and financial structures are being rebuilt. In the United Kingdom it appears that this control may take the form of a single importing agency--possibly a continuation of the government's wartime operation. In the continental countries and in Japan there is as yet no clear indication of what to expect; but their financial stresses are likely for a time to be much more severe than those in the United Kingdom and their foreign resources much less. It seems unlikely, therefore, that the import control measures these countries may take to protect their financial systems can be less austere than those of Britain.

Cotton, American, Foreign, and all kinds: Carryover on August 1, in major locations. Average 1925-29, 1934-38 and 1943

American Cotton

Location	Average 1925-29	Average 1934-38	1943 Preliminary
	1,000 bales	1,000 bales	1,000 bales
United States	2,627	7,191	10,569
Europe	2,131	1,472	1/ 505
Elsewhere	532	690	312
Total	5,290	9.353	11,386

Foreign Cotton

Location	Average 1925-29	Average 1934-38	1943 Preliminary
	1,000 bales	1,000 bales	1,000 bales
United States	120	75	88
Europe	1,386	2,066	1/ 1,610
Elsewhere	3,634	5,038	10,983
Total	5,140	7,179	12,681

All Kinds Cotton

Location	Average 1925-29	Average 1934-38	1943 Preliminary
	1,000 bales	1,000 bales	1,000 bales
United States	2,747	7,266	10,657
Europe	3,517	3,538	1/ 2,115
Elsewhere	4,166	5,728	11,295
Total	10,430	16,532	24,067

1/ Includes Turkey.

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COTTON: Production in specified countries, average 1934-38, annual 1942 and 1943

Country	Year beginning August 1		
	Average 1934-38	1942-43 1/	1943-44 1/
	1,000 bales	1,000 bales	1,000 bales
Western Hemisphere			
United States	12,712.4	12,817.0	11,427.0
Brazil	1,793.4	2,089.0	2/ 2,500.0
Peru	378.5	322.1	233.4
Mexico	316.5	434.9	519.8
Argentina	275.4	497.6	382.8
Paraguay	42.0	31.2	43.0
Total, Western Hemisphere	15,605.0	16,284.0	15,194.0
Asia			
India, excluding Burma	4,618.6	3,810.9	4,249.4
China, including Manchuria ..	3,127.0	3/ ---	3/ ---
Chosen	168.4	3/ ---	3/ ---
Turkey	251.0	230.6	216.7
Iran	153.6	119.9	92.2
Burma	95.1	70.0	---
Total, Asia	8,518.0	6,900.0	7,298.0
Africa			
Egypt	1,846.2	860.6	685.7
Uganda	273.2	93.9	292.9
Anglo-Egyptian Sudan	244.6	232.8	2/ 235.0
Belgian Congo	146.3	235.0	2/ 200.0
Tanganyika	45.3	42.7	2/ 42.7
Total, Africa	2,736.0	1,738.0	1,721.0
Europe			
Soviet Union	2,967.4	2/ 2,000.0	2/ 2,352.2
Greece	56.3	10.0	11.5
Bulgaria	38.7	92.2	55.0
Italy	14.4	2/ 80.0	3/ ---
Total, Europe	3,096.6	2,225.0	2,532.0
Total, Foreign 4/..............	17,256.6	14,383.0	15,373.0
Total, Domestic	12,712.4	12,817.0	11,427.0
Total, World	29,969.0	27,200.0	26,800.0

1/ Preliminary.
2/ Estimates based on planted acreage, reported growing conditions, trade estimates, or other partial information.
3/ Comparable data not available.
4/ Includes estimates for various minor countries.

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COTTON: World Trade: Exports from Principal Producing Countries

Country	Year beginning August 1				
	Average 1924-28	Average 1929-33	Average 1934-38	1937	1938
	1,000 bales 1/	1,000 bales 1/	1,000 bales 1/	1,000 bales 1/	1,000 bales 1/
Western Hemisphere:					
United States	8,817	8,044	5,296	5,976	3,512
Brazil	72	141	1,065	1,147	1,609
Peru	214	240	348	311	351
Mexico 2/...........	95	33	104	43	97
Argentina	77	114	133	49	116
Asia:					
India	2,938	2,559	2,746	1,720	2,685
China 2/............	297	220	244	176	630
Turkey 2/...........	70	73	79	52	114
Iran	79	88	81	91	33
Africa:					
Egypt	1,512	1,496	1,747	1,792	1,763
Uganda 2/...........	130	172	277	298	347
Anglo-Egyptian Sudan	104	112	258	278	341
Belgian Congo 2/....	16	53	133	149	194
Europe:					
Soviet Union 2/.....	3/	66	61	177	17
Total, Countries shown	14,421	13,411	12,572	12,259	11,809
Foreign	5,604	5,367	7,276	6,283	8,297
United States	8,817	8,044	5,296	5,976	3,512
U.S. as percent of total	61	60	42	48	30

1/ United States bales of 500 pounds; other countries equivalent bales of 478 pour
2/ Year beginning January 1.
3/ Not available.

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UNITED STATES: Value of Export Trade

Type	Year beginning August 1 Average 1924-28	Average 1929-33	Average 1934-38	1937	1938
	1,000,000 dollars	1,000,000 dollars	1,000,000 dollars	1,000,000 dollars	1,000,000 dollars
All Exports, Actual	4,895.9	2,548.9	2,713.1	3,321.9	2,886.6
Non-Agricultural Products, Actual	2,945.8	1,624.6	1,966.8	2,410.1	2,225.5
Percent of Total	60	64	72	73	77
Agricultural Products, Actual	1,950.1	924.3	746.3	911.8	661.1
Percent of Total	40	36	28	27	23
Raw Cotton, Actual	902.6	438.7	318.3	312.8	173.7
Percent of Total	18	17	12	9	6
Indices of Volume 1/	Percent	Percent	Percent	Percent	Percent
All Exports 2/	3/ 103	4/ 74	78	93	87
Agricultural Products	102	80	57	73	55
Raw Cotton	104	95	63	71	42

1/ Average of unadjusted monthly indices, 1924-29 = 100 percent.
2/ Compiled from indices prepared by the Bureau of Foreign and Domestic Commerce.
3/ Average of calendar years, 1925-29.
4/ Average fiscal years, 1929-30 to 1933-34.

Cotton, American, foreign, and all kinds: Consumption in specified locations, averages, 1925-29, 1934-38, and 1942

Location	American			Foreign			All kinds		
	Average 1925-29 1/	Average 1934-38	1942 preliminary	Average 1925-29 1/	Average 1934-38	1942 preliminary	Average 1925-29 1/	Average 1934-38	194 preli inar
	1,000 bales	1,000 bales	1,000 bales	1,000 bales	1,000 bales	1,000 bales	1,000 bales	1,000 bales	1,00 bale
United States	6,434	6,316	10,930	301	137	170	6,735	6,453	11,10
Great Britain	1,842	1,092	----	1,161	1,649	----	3,003	2,741	- -
Continental Europe									
Austria and Hungary	101	123		45	130		146	253	
Belgium	207	141		220	215		427	356	
Czechoslovakia	383	177		122	121		505	298	
Denmark	21	34		---	2		21	36	
Finland	36	53		---	8		36	61	
France	805	617		425	564		1,230	1,181	
Germany	1,092	336		356	817		1,448	1,153	
Holland	153	91		37	144		190	235	
Italy	716	397		289	296		1,005	693	
Norway and Sweden..	107	128		4	20		111	148	
Poland	241	190		44	104		285	294	
Portugal	57	35		34	53		91	88	
Russia	395	25		1,326	2,995		1,721	3,020	
Spain	290	106		127	128		417	234	
Switzerland	53	31		77	95		130	126	
Other continent ...	105	77		113	266		218	343	
Total continent	4,728	2,561		2,918	5,958		7,646	8,519	
Total Europe ..	6,570	3,653	900	4,079	7,607	4,500	10,649	11,260	5,40
Orient									
China	288	102		1,792	2,048		2,080	2,150	
India	65	38		1,715	2,604		1,780	2,642	
Japan	1,124	1,360		1,626	2,081		2,750	3,441	
Other	---	16		193	443		193	459	
Total	1,466	1,516	30	5,298	7,176	5,725	6,764	8,692	5,75
Elsewhere									
Brazil	---	---		378	645		378	645	
Canada	220	251		12	13		232	264	
Other countries ...	21	33		353	598		374	631	
Total	246	284	383	794	1,256	2,252	1,040	1,540	2,63
Total foreign countries	8,282	5,453	1,313	10,171	16,039	12,477	18,453	21,492	13,79
Total world ...	14,716	11,769	12,243	10,472	16,176	12,647	25,188	27,945	24,89

1/ Comparable data for individual countries except the United States and Great Brita are not available for 1925 and 1926. Averages shown here for these individual coun- tries are for the 3 years 1927-29; those for Great Britain, the United States, and totals are for the 5 years 1925-29/

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Rayon: World Production, averages 1925-29 and 1934-38 and 1942

Country	Average		Annual	
	1925-29	1934-38	1938	1942
	Million pounds	Million pounds	Million pounds	Million pounds
Unites States	81.6	278.4	287.5	632.6
Great Britain	39.8	129.3	138.2	135.0
Continental Europe				
Austria and Hungary..	4.0	2.1	1/	1/
Belgium	12.4	14.2	12.8	35.2
Czechoslovakia	3.1	7.1	6.0	1/
Denmark		---	---	---
Finland	---	---	---	3.3
France	25.9	68.9	72.6	197.5
Germany	39.9	248.8	470.1	1,100.0
Holland	12.2	21.8	19.9	37.5
Italy	50.0	197.6	268.3	462.0
Norway and Sweeden ..	0.3	2.4	4.2	10.9
Poland	3.6	15.0	22.4	1/
Portugal	---	0.2	.4	.5
Russia	0.3	14.1	16.0	30.0
Spain	0.8	4.5	1.2	28.6
Switzerland	8.4	10.7	12.2	35.2
Other Countries	---	0.8	2.4	14.6
Total Continent ...	160.9	608.2	908.5	1,955.3
Total Europe	200.7	737.5	1,046.7	2,090.3
Orient				
China	---	---	---	---
India	---	---	---	---
Japan	12.3	362.0	584.6	700.0
Ottu	---	---	---	---
Total Orient	12.3	362.0	584.6	700.0
Elsewhere				
Brazil	0.4	6.0	10.6	19.5
Canada	2.4	13.5	13.7	18.5
Other	---	1.0	2.8	12.0
Total Elsewhere ...	2.8	20.5	27.1	50.0
Total foreign	215.8	1,120.0	1,658.4	2,840.3
World	297.4	1,398.4	1,945.9	3,472.9

1/ Since 1938, production for Austria and Hungary, and in 1942, production for Czechoslovakia and Poland are included in Germany.